

REDUCING MORTALITY FROM BREAST CANCER

Note to Readers: Innovation is essential to cancer prevention. Genomic data support **precision prevention** as well as precision medicine. Strang is increasingly focused on innovation in cancer prevention. We will highlight novel approaches as we have the consequences of Covid.

Breast Cancer Prevention, COVID and Innovation

Summary: Breast cancer screening prevalence declined by 6% in 2020, less than cervical cancer but more than colorectal cancer. Infection, geography and screening procedure pose obstacles to screening that require options. County-level screening data show decreased screening in US counties with higher social vulnerability. Mammography technique is not a clear path to improve insensitivity, overdiagnosis.

Decline in Breast Cancer Screening: The Center for Disease Control and Prevention (CDCP) performs a national, population-based Behavioral Risk Factor Surveillance System (BRFSS) survey every 2 years. The 2020 survey performed found a 6% decline, greater in poorer and Hispanic women. Cervical cancer screening declined by 11%, and colorectal cancer screening was unchanged, as a 7% increase in stool sampling offset a 16% decline in colonoscopy.¹

County-level data from the 2018 PLACE dataset found significant association between area- level, multidimensional social vulnerability score and cancer screening. Adjusting for county-level access to care, urban-rural status, and uninsured proportion did not change the association.²

Alternatives **to invasive screening procedures** such as cervical sampling and colonoscopy will be necessary when inperson contact is problematic. Geography (rural distances) and infection (pandemic or endemic) require alternatives.

A BI-RADS 4 mammogram score signals concern about cancer. However, associated cancer rates range from 2-95%, signaling variability in both the sensitivity for detecting cancer and overdiagnosis. A retrospective study of screening digital breast tomosynthesis (DBT) versus digital mammography (2D) found DBT found BI-RADS 4 6% more often but had the same cancer detection rate and predictive value for cancer in a biopsy. Increasing mammography sensitivity alone does not improve cancer detection.

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REFERENCES

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The Strang Cancer Prevention Cookbook

Reduce your Risk for Cancer by Eating a Healthy Diet!

Root Vegetable Mashed Potatoes

10 Servings

The blend of autumn root vegetables is nutrient rich and contains only half the fat and calories of traditional mashed potatoes

I medium rutabaga (about 1 $\frac{1}{2}$ pounds) peeled and cut into 1-inch cubes 3 medium turnips (about 1 pound), peeled and cut into 1 $\frac{1}{2}$ -inch chunks $\frac{1}{2}$ teaspoon salt

4 large white potatoes (about 2 ½ pounds) peeled and cut into 1 ½ inch chunks

1 ½ cups warm 2% milk

2 tablespoons unsalted butter

Salt and freshly ground black pepper



Place the rutabaga and turnips in a large saucepan, cover with cold water and add the salt. Bring to a boil, then reduce the heat and simmer for 30 minutes. Add the potatoes and cook until the vegetables are tender when pierced with a knife, 10 to 15 minutes. Drain the boiled vegetables and transfer them to a large bowl.

Heat the milk in a small saucepan on the stove or microwave Using an electric mixer, begin creaming the rutabaga, turnips and potatoes white slowly pouring the warm milk into the bowl (use only as much milk is needed to make the puree creamy and light). Beat in the butter and season with salt and pepper to taste. Serve hot.

Calories 174 Protein 5g Carbohydrates 30g Fat 4g Cholesterol 10mg Dietary fiber 3g Saturated fat 1g Major sources of Potential cancer fighters: Phytochemicals: glucosinolates, plant polyphenols (flavonoids phenolic acids), alliumn compounds,

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